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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER	
TERMANINI, SAMIR	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/666,227

Filing Date: September 18, 2003
Appellant(s): POERNER ET AL.

Michael N. Haynes
For Appellant

EXAMINER'S ANSWER

This Answer is made in response to the Order Returning Undocketed Appeal to the examiner from BPAI dated 08/04/2009, appeal brief filed 12/23/2008 and reply brief filed 02/17/2009, both appealing from the Office action mailed 7/10/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The Examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claims 1-41 are pending and are the subject of this appeal. Appellants have incorrectly indicated that only claims 1-40 are pending in this application.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

NEW GROUND(S) OF REJECTION

A new ground(s) of rejection appears in this Examiner's Answer. It is being prominently identified, and will be addressed after a brief procedural background:

Appellant, After receiving an Office action finally rejecting all pending claims, filed an After Final amendment presented one additional claim (41). Upon review, it was determined that the claim at least places this application in better form for appeal because it only required a cursory review, does not add any new features, and does not significantly alter the scope of the all of the claims considered together. In like manner, the entry of claim 41, without more, would not have reasonably justified further search, particularly in view of claim 36, which already required the Examiner's field of search to include, inter alia, inter-generational spacing. Shortly thereafter, an Advisory action issued, indicating that claim 41 was being entered, but was not included with any statement of rejection.

The Board of Patent Appeals and Interferences, found that the Examiner's Answer mailed May 12, 2009 introduced new grounds of rejection because claim 41 was substantively addressed in the record, for the first time. On 8/4/2009 the Board of Patent Appeals and Interferences issued an Order directing, *inter alia*, compliance with *Manual of Patent Examining Procedure* (MPEP) § 1207.02 and 1207.03 (8th ed. Rev. 6, Sept 2007). Pursuant to the Board's Order, the Examiners Answer mailed May 12, 2009 is hereby vacated, and this Examiner's Answer is issued in its place.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence

5,870,559	*Leshem et al.*	4-1997
2003/0184580	*Kodosky et al.* et al.	2-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

CLAIM REJECTIONS-35 U.S.C. § 103

i) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time of Appellants' invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

ii) **Claims 1-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kodosky et al.* et al. (U.S. PG-Pub. 2003/0184580, hereinafter *Kodosky et al.*) in view of *Leshem et al.* (U.S. Pat. No. 5,870,559, hereinafter *Leshem*).

I. Scope of the Prior Art and the Level of Ordinary Skill[1]

As to independent **claim 1**, *Kodosky et al.* describe, in detail, a method for configuring HMI user screen navigation. For clarity, the Examiner is reproducing *Kodosky et al.*'s figures 20A and 24A below:

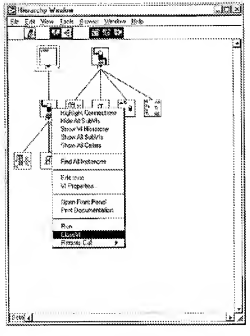


Fig. 20A

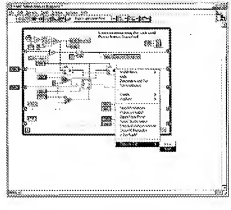


Fig. 24A

II. Obviousness and Analysis of Claimed Differences

As to independent **claim 1**, *Kodosky et al.* illustrate providing an HMI screen navigation editor to a user ("...The system may also include a system editor 732. The system

[1] "Factors that may be considered in determining level of ordinary skill in the art include (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field." *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983), cert. denied, 464 U.S. 1043 (1984).

editor may be used for creating a configuration diagram 712, also referred to as a system panel. In the present application, the terms 'system panel' and 'configuration diagram' are used interchangeably. The configuration diagram 712 may include a plurality of nodes or icons 714 which represent items 718 in a system, such as devices, machines, programs, applications, projects or other elements in the configuration diagram 712. The configuration diagram 712 may also illustrate the relationship between nodes using connections or links 716 as described herein....," para. [0148]); via the HMI screen navigation editor ("...automatically appear in the block diagram for further navigation or positioning by the user....," para. [0375]), enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes ("...enabling a user to more easily specify or create distributed systems and/or applications utilizing a configuration diagram....," para. [0001]); responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node ("...The "drag and drop" method may comprise the user selecting the first program icon with a pointing device (e.g., a mouse) and dragging the first program icon on the display to be on top of or proximate to the first device icon....," para. [0185]) automatically adjusting a nodes position ("...The connections between device icons that are automatically displayed may be displayed with an appearance indicating the type of detected connection....," para. [0016]). Additionally, *Kodosky et al.* clearly teach rendering the collection to the user (e.g., *Kodosky et al.*'s figures 20A and 24A above)

Kodosky et al. differs from claim 1 in two regards. First, *Kodosky et al.* does not specifically teach that the adjustment of the position of a parent node is done in a recursive

manner. Second, *Kodosky et al.* is silent as to the adjustment being conducted for all of the parents' children.

Leshem teach automatically recursively adjusting the position nodes in a HMI hierarchy editor. *Leshem*'s Fig. 24 is illustrative of this editor (reproduced below):

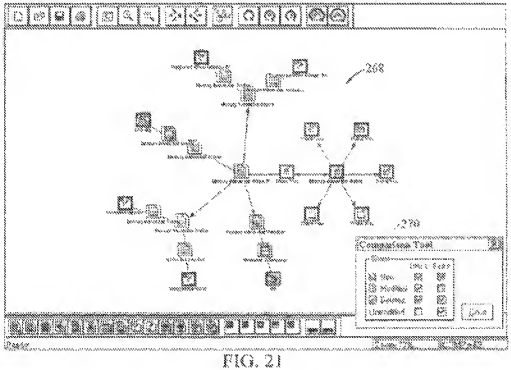


FIG. 21

Leshem also disclose automatically recursively adjusting a position of a parent node with respect to its children:

> A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map) on the display screen such that children nodes are positioned around and connected to their respective immediate parents. (This layout method can also be used to display other types of hierarchical data structures, such as the tree structure of a conventional file system.) The result is a map which comprises a hierarchical arrangement of parent child node (icon) clusters in which parent-child relationships are immediately apparent.

(Column 2, at lines 35-46). It is important to point out that, "...This process is repeated for each parent node..."(Column 13, at lines 44-45) as it "recursively positions the nodes on the display screen" (Column 13, at lines 65-67).

It would have been obvious to one ordinary skill in the relevant field at the time of Appellants' invention, to recursively adjust a position of a parent node as taught in *Leshem* with the HMI editor of *Kodosky et al.* because *Kodosky et al.* expressly suggests that it is advantageously suitable to use its HMI editor with web based systems like *Leshem* ("...web service based interaction..." para. [0163]). Not only was the use of web service based interaction was expressly enumerated, it was a predictable solution and a person of ordinary skill in art would have had good reason to pursue it therefor.

As to dependent **claim 2**, which depends from claim 1, *Kodosky et al.* further disclose*:* the method of claim 1, further comprising: receiving from the user a specification ("...configured ...," para. [0234]), of an HMI root screen node ("...402 at the top level ...," para. [0237]).

As to dependent **claim 3**, which depends from claim 1, *Kodosky et al.* further disclose*:* the method of claim 1, further comprising: receiving from the user a specification of an HMI child screen node ("...For example, the user may use a pointing device (e.g., a

mouse), and may possibly use a "wiring tool" icon on the display, to connect a first device icon to a second device icon. This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....," para. [0017]), the HMI child screen node a descendent of an HMI root screen node ("...This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons...," para. [0017]).

As to dependent **claims 4 and 20**, which depend from claim 1, *Kodosky et al.* further disclose: the method of claim 1, further comprising: receiving from the user a specification of a relationship between two of the plurality of HMI screen nodes one being non familial ("...For example, the user can graphically modify [e.g., using a pointing device] the connection displayed between a first program and a second program so that the connection is displayed between the first program and a third program....," para. [0018]).

As to dependent **claims 5 and 7**, which depend from claim 1, *Kodosky et al.* further disclose: the method of claim 1, further comprising: receiving from the user a specification of an organization or arrangement of the collection ("...In this embodiment, the configuration diagram is a specification of a desired system....," para. [0164]).

As to dependent **claim 6**, which depends from claim 1, *Kodosky et al.* further disclose: the method of claim 1, further comprising: receiving from the user a specification or attribute of a hierarchy of the collection ("...For example, as the user drags and drops program icons [e.g., from the configuration diagram] on to various device icons on the configuration diagram in step 208, the system may operate to display the updated relationship [e.g., hierarchy] of programs proximate to, e.g., underneath, the respective device icon to where they have been deployed...," para. [0186]).

As to dependent **claim 8**, *Kodosky et al.* taught the limitations of claim 1 addressed above, *Kodosky et al.* fails to clearly show receiving from the user a specification of a size the plurality of HMI screen nodes. *Leshem* discloses receiving from the user a specification of a size the plurality of HMI screen nodes ("...This is a recursive step which is applied on a node-by-node basis in order to determine (i) the display size of each node...," col. 13, lines 35-36).

It would have been obvious to one ordinary skill in the relevant field at the time of Appellants' invention, to adapt the node size *Kodosky et al.* with the method of *Leshem* because one skilled in the art, having common knowledge and common sense, would reasonably be expected to draw the inference from *Leshem* that size is the limiting factor in displaying nodes of trees on displays with limited screen space.

As to dependent **claim 9**, which depends from claim 1, *Kodosky et al.* further discloses the method of claim 1, further comprising: zooming a rendition of the plurality of HMI screen nodes ("...zoom in and out on portions of a site map...," col. 2, lines 15-20).

As to dependent **claim 10**, *Kodosky et al.* taught the limitations of claim 1 addressed above. *Kodosky et al.* fails to clearly show panning a rendition of the plurality of HMI screen nodes.

Leshem teaches panning a rendition of the plurality of HMI screen nodes ("...To display the Pan Window 86, the user selects the "Pan Window" menu option from the VIEW menu while viewing a map. Within the Pan Window, the user is presented with a display of the entire map 30, with a dashed box 87 indicating the portion of the map that corresponds to the zoomed-in screen display. As the user navigates the site map (using the scrolling

controls 40, 42 and/or other navigational controls), the dashed box automatically moves along the map to track the zoomed-in screen display...." col. 17, lines 29-46).

It would have been obvious to one ordinary skill in the relevant field at the time of Appellants' invention, to adapt the view for panning is in *Leshem*, with the nodes of *Kodosky et al.* because one skilled in the art, having common knowledge and common sense, would reasonably be expected to draw the inference from *Leshem* that viewing an item larger than a screen would require panning, as taught in *Leshem*.

As to dependent **claim 11**, which depends from claim 1, *Kodosky et al.* further disclose*:* (Original) the method of claim 1, further comprising: collapsing a rendition of the plurality of HMI screen nodes ("...every individual tree is preferably collapsible...," para. [0410]).

As to dependent **claim 12**, which depends from claim 1, *Kodosky et al.* further disclose*:* the method of claim 1, further comprising: expanding a rendition of the plurality of HMI screen nodes ("...expanded to show one or more device icons comprised in the configuration diagram....," para. [0387]).

As to independent **claim 13**, *Kodosky et al.* describe(s): the method of claim 1, further comprising: rotating a rendition of the plurality of HMI screen nodes (see the rotate buttons on top toolbar towards the right hand side, Fig. 6, *Kodosky et al.*):

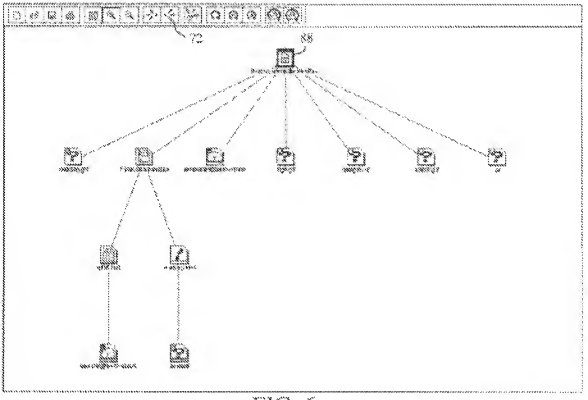


FIG. 6

As to dependent **claim 14**, which depends from claim 1, *Kodosky et al.* further disclose*:* the method of claim 1, further comprising: rendering a portion ("...a portion or all of a configuration diagram...," para. [0016])(emphasis added) of the plurality of HMI screen nodes ("...The configuration diagram may support various types of views, such as an entire system view, a subsystem view, a device view, a program view, etc. For example, the user can "drill down" in the configuration diagram to view a selected portion of the diagram, e.g., a selected subsystem of devices, a single device, the programs associated with a device, the data points associated with a device, the I/O channels associated with a device, etc...," para. [0015])(emphasis added).

As to dependent **claim 15**, which depends from claim 1, *Kodosky et al.* further disclose*:* the method of claim 1, further comprising: enabling the user to revise the

collection ("...In step 208 the user may graphically configure program deployment and/or invocation using the configuration diagram. The user may graphically configure program deployment and/or invocation by providing graphical user input to the configuration diagram to associate (e.g., drag and drop), icons with other icons, change connections between icons, etc...," para. [0175]).

As to dependent **claim 16**, which depends from claim 1, *Kodosky et al.* further disclose: the method of claim 1, further comprising: enabling the user to revise at least one of the plurality of HMI screen nodes ("...The user may graphically configure ...," para. [0175]).

As to dependent **claim 17**, which depends from claim 1, *Kodosky et al.* further disclose: the method of claim 1, further comprising: receiving a user specification of an attribute of an HMI screen node ("...The user can also draw links between program icons to configure an invocation relationship between the respective programs...," para. [0316]).

As to dependent **claims 18 and 19**, which depend from claim 1, *Kodosky et al.* further disclose: the method of claim 1, further comprising: receiving from the user a specification of a link between two HMI screen nodes ("...For example, the displayed connections may have an appearance that varies according to one or more of color, size or shading to indicate the type of connection between the devices...," para. [0010]).

As to dependent **claim 21**, which depends from claim 1, *Kodosky et al.* further disclose: the method of claim 1, further comprising: rendering a link between two HMI screen nodes ("...The connection that is displayed between two device icons ...," para. [0159]);

As to dependent **claim 22**, *Kodosky et al.* further disclose: the method of claim 1, further comprising: rendering a link from a first HMI screen node to a second HMI screen node ("...relationship view ...," para. [0176]), the second HMI screen node non-familial to the first HMI screen node ("...the configuration...," para. [0176]).

As to dependent **claims 23-24**, which depend from claim 1, *Kodosky et al.* further disclose: the method of claim 1, further comprising: receiving and rendering a navigation control comprising at least one HMI screen link.

As to dependent **claims 25-32**, which depend from claim 1, *Kodosky et al.* further disclose: the method of claim 1, further comprising: receiving and rendering from the user a specification of a navigation button comprising an HMI screen link "...In one embodiment, the user can select a particular device icon and cause this device icon to be the only device icon displayed on the screen....," para. [0411]), activatable via a user-specified soft key ("...while pressing a key on the keyboard (e.g., the ALT key)...," para. [0231]).

As to independent **claim 33**, this claim differs from claim 1 only in that it is directed to a product defined by the process of claim 1. Accordingly, this claim is rejected for the same reasons set forth in the treatment of claim 1, above.

As to independent **claim 34**, this claim differs from claim 1 in that it is directed to an apparatus for carrying out the process of claim 1. Accordingly, this claim is rejected for the same reasons set forth in the treatment of claim 1, above.

As to dependent **claim 35**, *Kodosky et al.* teach the limitations of claim 1, addressed above, further comprising: receiving from the user, a user-drawn relationship indication line between two of the plurality of HMI screen nodes ("...The configuration diagram may

include connections ("connection icons") such as lines, that are displayed between the various device icons to show the interrelationship or coupling between the respective devices....," para. [0204]).

As to dependent **claim 36**, which depends from claim 1, *Kodosky et al.* teach the limitations of claim 1, addressed above, further comprising: automatically determining an arrangement of the collection based upon a user specified upper limit on inter-generational spacing, e.g,:

> "...As a result, all of the children 48 are positioned approximately equidistant from the parent 44, and are spaced apart from one another by substantially equal angular increments. Similar graphical representations to that of FIG. 3 are illustrated in FIG. I by node clusters 52, 54 and 56. As illustrated by these three clusters in FIG. 1, both (i) the size of parent icon and (ii) the distance from the parent to its children are proportional to the number of immediate children of the parent ...," col. 11, lines 35-46).

As to dependent **claim 37**, *Kodosky et al.* teach the limitations of claim 1, addressed above, further comprising: receiving a user specification of an attribute of an HMI screen node, the attribute adapted to change a background color of a screen ("Background Color", pp. 6–7; see also "The background color change" p. 10–9).

As to **claim 38–40**, *Kodosky et al.* teach rendering a navigation control comprising a button adapted to display a previously viewed screen in a sequence of screens or adapted to display a previously viewed screen in a sequence of screens in a sequence of screens ("...the configuration diagram (and/or the preview window) may support multiple levels of undo/redo, thereby allowing the user to "back out" changes that have been made....," para. [0187]).

NEW GROUND(S) OF REJECTION

THE FOLLOWING REJECTION(S) SET FORTH NEW GROUNDS OF APPLICABLE TO THE APPEALED CLAIMS:

iii) The text of section 103(a) of Title 35, U.S. Code appearing above is repeated as fully set fourth hereunder.

iv) **Claim 41** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Kodosky et al.* et al. (U.S. PG-Pub. 2003/0184580, hereinafter *Kodosky et al.*) in view of *Leshem et al.* (U.S. Pat. No. 5,870,559, hereinafter *Leshem*).

As to dependent **claim 41**, *Kodosky et al.* teach the limitations of claim 40, addressed above, further comprising configuring HMI screen navigation:

> The system may also include a system editor 732. The system editor may be used for creating a configuration diagram 712, also referred to as a system panel. In the present application, the terms 'system panel' and 'configuration diagram' are used interchangeably. The configuration diagram 712 may include a plurality of nodes or icons 714 which represent items 718 in a system, such as devices, machines, programs, applications, projects or other elements in the configuration diagram 712. The configuration diagram 712 may also illustrate the relationship between nodes using connections or links 716 as described herein....,"

(para. [0148]); via the HMI screen navigation editor ("...automatically appear in the block diagram for further navigation or positioning by the user....," para. [0375]), enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes ("...enabling a user to more easily specify or create distributed systems and/or applications utilizing a configuration diagram....," para. [0001]); responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node ("...The "drag and drop" method may comprise the user selecting the first program icon with a

pointing device (e.g., a mouse) and dragging the first program icon on the display to be on top of or proximate to the first device icon....," para. [0185]) automatically adjusting a nodes position ("...The connections between device icons that are automatically displayed may be displayed with an appearance indicating the type of detected connection....," para. [0016]). Additionally, *Kodosky et al.* clearly teach rendering the collection to the user (e.g., *Kodosky et al.*'s figures 20A and 24A above).

Kodosky et al. differs from claim 1 in two regards. First, *Kodosky et al.* does not specifically teach that the adjustment of the position of a parent node is done in a recursive manner. Second, *Kodosky et al.* is silent as to the adjustment being conducted for all of the parents' children.

Leshem teach automatically recursively adjusting the position nodes in a HMI hierarchy editor. *Leshem*'s Fig. 24 is illustrative of this editor (reproduced below):

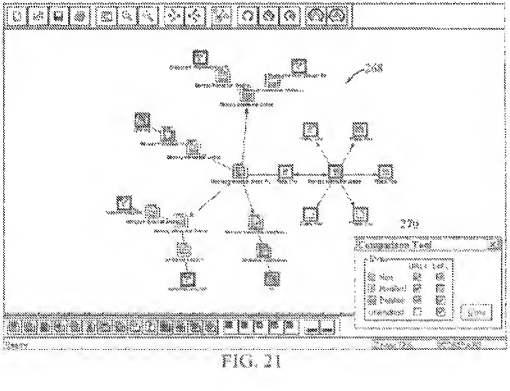


FIG. 21

Leshem also disclose automatically recursively adjusting a position of a parent node with respect to its children:

> A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map) on the display screen such that children nodes are positioned around and connected to their respective immediate parents. (This layout method can also be used to display other types of hierarchical data structures, such as the tree structure of a conventional file system.) The result is a map which comprises a hierarchical arrangement of parent child node (icon) clusters in which parent-child relationships are immediately apparent.

(Column 2, at lines 35-46). It is important to point out that, "...This process is repeated for each parent node..."(Column 13, at lines 44-45) as it "recursively positions the nodes on the display screen" (Column 13, at lines 65-67).

It would have been obvious to one ordinary skill in the relevant field at the time of Appellants' invention, to recursively adjust a position of a parent node as taught in *Leshem* with the HMI editor of *Kodosky et al.* because *Kodosky et al.* expressly suggests that it is advantageously suitable to use its HMI editor with web based systems like *Leshem* ("...web service based interaction..." para. [0163]). Not only was the use of web service based interaction was expressly enumerated, it was a predictable solution and a person of ordinary skill in art would have had good reason to pursue it therefor.

(10) Response to Argument

I. Arguments concerning 35 U.S.C. § 101

Appellant's brief presents arguments relating to statutory subject matter under 35 U.S.C. § 101. However, the 35 U.S.C. § 101 rejection made with the Non-final Office action (mail dated: 7/5/2006) was subsequently withdrawn by 11/6/2006 Final office action.

II. Arguments concerning 35 U.S.C. § 103(a)

Appellants argue:

> The present Office Action fails to accord Ms. Guy' s Declaration ("the Declaration") the evidentiary weight to which that Declaration is entitled. The present Office Action merely asserts, "it [the Declaration] fails to provide outweighing objective evidence." This assertion is baseless since the present Office Action Offers no evidence whatsoever regarding how one having ordinary skill in the art would interpret the claimed subject matter of each of claims 1-40 and whether one having ordinary skill in the art would find that claimed subject matter obvious in view of the applied portions of the relied upon references. The utter lack of evidence of the present Office Action cannot outweigh the evidence of the Declaration.

The Examiner respectfully disagrees. Appellant offers an Affidavit pursuant to 37 C.F.R. 1.132 by Colleen Guy in an attempt to "...provid[e] persuasive evidence that the prior Office Action does not present a *prima facie* rejection of any of claims 1-40..." (pg. 18 of Remarks filed 9/10/2008). The Affidavit attempts to do this does this by pointing to specific passages the Examiner relied on in making the rejections (See e.g., Affidavit, paragraphs 14, 19, and 21), then by referencing a definition in the Appellant's Specification (See e.g., paragraphs 16 and 18), followed by a conclusory statement of what one of ordinary skill in the art would have noted, considered, or found. Furthermore, in each instance, Affiant uses a Red Herring fallacy, through which a portion of the cited reference is presented and an opinion drawn without any reasoned explanation thereof.

For example, Colleen Guy's assertion (see Affidavit, paragraph 20), that *Kodosky et al.* fails to teach *a linked hierarchically organized plurality of HMI screen nodes*, is unsupported by corroborating evidence nor by a reasoned explanation. The closest

reasoning affiant provided appears in paragraph 19, where Affiant merely quotes language from (para. 1) of the cited reference and then concludes that said language would not have been found to teach the claimed invention. Without more, affiant fails to explain the basis for the opinion in anything but a conclusory statement. Therefore, Affiant's testimony is entitled to little, if any, weight. *Rohm and Haas Co. v. Biotech Corp.*, 127 F.3d 1089, 1092 (Fed. Cir. 1997) (nothing in the rules or in jurisprudence requires the fact finder to credit unsupported or conclusory assertions); *In re Schulze*, 346 F.2d 600, 602 (CCPA 1965) (argument in the brief does not take the place of evidence of record).

Even if weight is given to the statement in paragraph 20, the evidence of record, as a whole, suggests to the contrary,

> This allows the viewer to easily view and understand what devices are present in the distributed system. In one embodiment, information may be displayed proximate to various device icons to indicate information about the device, such as type of device, geographic location of the device, calibration information, etc.

(Para. [0158]). See also,

> Thus the configuration diagram may display an iconic relationship view of the various programs present within the system. The iconic relationship view may comprise an object-oriented view, a hierarchy view...

(Para. [0012]).

In addressing Colleen Guy's assertions (in paragraphs 22-23,) the Examiner finds these conclusions too are unsupported neither by corroborating evidence nor by a reasoned

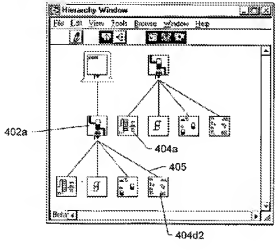
explanation as to why paragraphs [0375] are deficient in teaching the claimed limitations. Affiant only offers a conclusory statement.

In like fashion, even if weight is given to the statement in paragraph 22, the evidence of record suggests to the contrary,

> The device icons preferably have an appearance which corresponds to the device they represent.

In addressing Colleen Guy's assertions in paragraphs 25-26, the Examiner finds that these conclusions too are unsupported neither by corroborating evidence nor by a reasoned explanation as to why the cited portions are deficient in teaching the claimed limitations.

Even if weight is given to the statement in paragraphs 25-26, the evidence of record suggests to the contrary, see figure 17 below,



The remainder of Appellant s argument with respect to the affidavit is deficient as unsupported neither by corroborating evidence nor by a reasoned explanation as to why the cited portions are deficient in teaching the claimed limitations.

Appellants argue:

> Since the Declaration provides persuasive evidence that the prior Office Action does not present prima-facie rejection of any of claims 1-40, no requirement exists that the Declaration address secondary considerations regarding patentability of the claimed subject matter.

The Examiner respectfully disagrees. The Affidavit under 37 C.F.R. 1.132 filed 10/31/2007 was carefully considered by the Examiner.[2] However, it is insufficient to overcome the rejection of claims 1-40 based upon 35 U.S.C. §103(a) *Kodosky et al.* et al. (U.S. PG-Pub. 2003/0184580) in view of *Leshem et al.* (U.S. Pat. No. 5,870,559) as set forth above because, weighed against the evidence supporting the prima facie rejections, it fails to provide outweighing objective evidence. See MPEP § 716.

> Objective evidence which must be factually supported by an appropriate affidavit or declaration to be of probative value includes evidence of unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the appelant. See, for example, In re De Blauwe, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984)

The evidence within the Affidavit consists substantially of statements expressing that: (1) one of ordinary skill in the art would not find the assertions of the Previous Office Action to be true; and (2) that on one of ordinary skill art would not understand the cited references' disclosures.

The evidence of the Affidavit as not provided any objective evidence of secondary considerations such as unexpected results, commercial success, long-felt need, failure of others, copying by others, licensing, or skepticism of experts. Therefore, when all of the

[2] All of the competent rebuttal evidence taken as a whole should be weighed against the evidence supporting the prima facie case. *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

Appellants argue:

> In view of the explicit definition of "HMI screen node" of the present application, the assertions of the Advisory Action demonstrate a profound misunderstanding of the claimed subject matter. The Advisory Action asserts at Page 4, "[e]ven if weight is given to the statement in paragraph 22, the evidence of record suggests to the contrary, "The device icons preferably have an appearance which corresponds to the device they represent'". No evidence is of record that one having ordinary skill in the art would have interpreted "device Icons" to teach an "HMI screen node", which the present application defines a miniaturized visual representation of a visual display of a human machine interlace, used for monitoring, programming and/or controlling automation machines and/or processes, renderable via a monitor.

The Examiner respectfully disagrees. The Examiner takes the position, as repeatedly set forth in the record, the following disclosure in *Kodosky et al.*, reads on the specific claim limitation Appellants argue is absent:

> [0008] In one embodiment, the user may create or assemble a configuration diagram on a computer system (e.g., the "main" computer system) representing a system, e.g., a distributed system. The configuration diagram may include device icons that represent devices in the system. The device icons preferably have an appearance which corresponds to the device they represent. This allows the viewer to easily view and consider what devices are present in the system.

(Emphasis added).

1. Claim 1

Appellants argue:

> In view of the explicit definition of "HMI screen node" of the present application, the assertions of the Advisory Action

> demonstrate a profound misunderstanding of the claimed subject matter. The Advisory Action asserts at Page 4, "[e]ven if weight is given to the statement in paragraph 22, the evidence of record suggests to the contrary, "The device icons preferably have an appearance which corresponds to the device they represent"". No evidence is of record that one having ordinary skill in the art would have interpreted "device Icons" to teach an "HMI screen node", which the present application defines as a miniaturized visual representation of a visual display of a human machine interlace, used for monitoring, programming, and/or controlling automation machines and/or processes, renderable via a monitor.

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* explain:

> [0008] In one embodiment, the user may create or assemble a configuration diagram on a computer system (e.g., the "main" computer system) representing a system, e.g., a distributed system. The configuration diagram may include device icons that represent devices in the system. The device icons preferably have an appearance which corresponds to the device they represent. This allows the viewer to easily view and consider what devices are present in the system.

(Emphasis added). Even more specifically, the language, "The device icons preferably have an appearance which corresponds to the device they represent...," without more, clearly establishes persuasive evidence of record that one having ordinary skill in the art would have interpreted "device Icons" to teach an "HMI screen node", which the present application defines as a miniaturized visual representation of a visual display of a human machine interlace, used for monitoring, programming, and/or controlling automation machines and/or processes, renderable via a monitor.

Appellants argue:

> In addition, claim 1, states, *inter alia*, yet no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "responsive to a detected collision between a Parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node

> of a plurality of child nodes of said parent node, automatically recursively adjusting a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node".

The Examiner respectfully disagrees. Appellant at paragraph 30 of their specification has provided a lexicographic definition for collision, *to wit*:

> [30] Collision-a visual intersection or overlap of at least two nodes.

Kodosky et al. likewise explains:

> ...The "drag and drop" method may comprise the user selecting the first program icon with a pointing device (e.g., a mouse) and dragging the first program icon on the display to be on top of or proximate to the first device icon...

(para. [0185]).This teaching clearly establishes persuasive evidence of record that one having ordinary skill in the art would have interpreted "responsive t o a detected collision between a Parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node" which the present application defines at paragraph 30 to be met by the aforementioned disclosures.

In addressing the limitation "...automatically recursively adjusting a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes," persuasive evidence of record was set forth by the bringing to Appellants attention the following disclosure by Leshem:

> A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map) on the display screen such that children nodes are positioned around and connected to their respective immediate parents. (This layout method can also be used to display other types of hierarchical data structures, such as the tree structure of a conventional file system.) The result is a map which comprises a hierarchical

> arrangement of parent child node (icon) clusters in which parent-child relationships are immediately apparent.

(Column 2, at lines 35-46). Moreover, the above disclosure is reciprocated by *Kodosky et al.*:

> "...The connections between device icons that are automatically displayed may be displayed with an appearance indicating the type of detected connection....,"

(para. [0016]). As applied in the initial rejections, taken together, both disclosures clearly establish persuasive evidence of record that the applied portions of the relied-upon references teach, alone and in combination, a "detected collision", with "adjusting a position of a parent node" and "adjusting a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes".

Appellants argue:

> The present Office Action alleges, at page 5, that this claimed subject matter is taught by paragraphs 16 and 185 of *Kodosky et al.*. Yet, the present Office Action presents no evidence that one having ordinary skill in the art would have found that these applied portions of *Kodosky et al.* teach anything whatsoever regarding "adjusting a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of aid plurality of child nodes". By contrast, Appelant provided persuasive evidence, in the form of the Declaration of Colleen Guy, that the applied portions of *Kodosky et al.* do not teach, "responsive to a detected collision between a parent.

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, Leshem explains:

> A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map) on the display screen such that children nodes are positioned around and connected to

> their respective immediate parents. (This layout method can also be used to display other types of hierarchical data structures, such as the tree structure of a conventional file system.) The result is a map which comprises a hierarchical arrangement of parent child node (icon) clusters in which parent-child relationships are immediately apparent.

(Column 2, at lines 35-46). This disclosure is reciprocated by *Kodosky et al.*:

> "...The connections between device icons that are automatically displayed may be displayed with an appearance indicating the type of detected connection....,"

(para. [0016]). clearly establishes persuasive evidence of record that the user interface illustrated in figure 17 of *Kodosky et al.* teach a "detected collision", with "adjusting a position of a parent node" and "adjusting a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes".

Accordingly, for at least the foregoing reasons, the rejection of claim 1 should be sustained.

2. Claim 2

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness. Claim 2, states, *inter alia*, yet no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "receiving from the user a specification of an HMI root screen node." Indeed, no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, anything regarding an HMI screen node as that phrase has been defined in the present application. Thus, even if there were proper evidence of obviousness presented in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining

> or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), no substantial evidence has been presented the applied portions of the references relied upon in the Office Action, as attempted to be modified and/or combined, expressly or inherently teach every limitation of the claims, and consequently the Office Action fails to establish a prima facie case of obviousness. Accordingly, for at least the reasons mentioned above, a reversal of the rejection of claim 2 is respectfully requested.

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* taught "receiving from the user a specification of an HMI root screen node."

> "...For example, the user may use a pointing device (e.g., a mouse), and may possibly use a "wiring tool" icon on the display, to connect a first device icon to a second device icon. This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....,"
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> ***
>
> This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons...

(para. [0017]). As applied in the initial rejections, these disclosures, *inter alia*, clearly establish persuasive evidence of record that the applied portions of the relied-upon references teach, alone and in combination, the claimed limitation in question.

In specifically addressing the remaining arguments under this section, it is respectfully submitted that Appellants have not submitted evidence to support these attorney arguments. It is respectfully submitted that, without supporting evidence, these

attorney arguments do little to rebut a prima facie case of obviousness.[3] Accordingly, for at least the reasons mentioned above, the rejection of this claim should be sustained.

3. Claim 3

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness. Claim 3, states, *inter alia*, yet no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "receiving from the user a specification of an HMI child screen node, the HMI child screen node a descendent of an HMI root screen node." Indeed, no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, anything regarding an HMI screen node as that phrase has been defined in the present application. Thus, even if there were proper evidence of obviousness presented in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), no substantial evidence has been presented the applied portions of the references relied upon in the Office Action, as attempted to be modified and/or combined, expressly or inherently teach every limitation of the claims, and consequently the Office Action fails to establish a prima-facie case of obviousness. Accordingly, for at least the reasons mentioned above, a reversal of the rejection of claim 3 is respectfully requested.

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* taught "receiving from the user a specification of an HMI root screen node."

> "...For example, the user may use a pointing device (e.g., a mouse), and may possibly use a "wiring tool" icon on the

[3] 4 An attorney argument is not evidence unless it is an admission, because "[a]n assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness" (citations omitted) In re Geisler, 116 F.3d 1465, 1470 (Fed. Cir. 1997).

> display, to connect a first device icon to a second device icon. This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....,"
>
> ***
>
> This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons...

(para. [0017]). As applied in the initial rejections, these disclosures, *inter alia*, clearly establish persuasive evidence of record that the applied portions of the relied-upon references teach, alone and in combination, the claimed limitation in question.

In specifically addressing the remaining arguments under this section, it is respectfully submitted that Appellants have not submitted evidence to support these attorney arguments. It is respectfully submitted that, without supporting evidence, these attorney arguments do little to rebut a prima facie case of obviousness.[4] Accordingly, for at least the reasons mentioned above, the rejection of this claim should be sustained.

4. Claim 4

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness Claim 4, states, *inter alia*, yet no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "receiving from the user, a specification of a relationship between two of the plurality of HMI screen nodes." Indeed, no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, anything regarding an HMI screen node as that phrase has been defined in the present application. Thus, even if there were proper

[4] An attorney argument is not evidence unless it is an admission, because "[a]n assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness" (citations omitted) In re Geisler, 116 F.3d 1465, 1470 (Fed. Cir. 1997).

> evidence of obviousness presented in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), no substantial evidence has been presented the applied portions of the references relied upon in the Office Action, as attempted to be modified and/or combined, expressly or inherently teach every limitation of the claims, and consequently the Office Action fails to establish a2arimofacie ease of obviousness. Accordingly, for at least the reasons mentioned above, a reversal of the rejection of claim 4 is respectfully requested

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* taught receiving from the user, a specification of a relationship between two of the plurality of HMI screen nodes.:

> ...This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons...

(para. [0017]). As applied in the initial rejections, these disclosures, *inter alia*, clearly establish persuasive evidence of record that the applied portions of the relied-upon references teach, alone and in combination, the claimed limitation in question.

In specifically addressing the remaining arguments under this section, it is respectfully submitted that Appellants have not submitted evidence to support these attorney arguments. It is respectfully submitted that, without supporting evidence, these attorney arguments do little to rebut a prima facie case of obviousness.[5] Accordingly, for at least the reasons mentioned above, the rejection of this claim should be sustained.

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[5] 4 An attorney argument is not evidence unless it is an admission, because "[a]n assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness" (citations omitted) In re Geisler, 116 F.3d 1465, 1470 (Fed. Cir. 1997).

Accordingly, for at least the reasons mentioned above, the rejection of this claim should be sustained.

5. Claim 5

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered atone or in combination, establishes a prima facie case of obviousness. Claim 5, states, *inter alia*, yet no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "receiving from the user a specification of an organization of the collection." Claim 1, from which claim 5 ultimately depends, requires the "collection" to comprise "a linked hierarchically organized plurality of HMI screen nodes". No evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, anything regarding an HMI screen node as that phrase has been defined in the present application. Thus, even if there were proper evidence of obviousness presented in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), no substantial evidence has been presented the applied portions of the references relied upon in the Office Action, as attempted to be modified and/or combined, expressly or inherently teach every limitation of the claims, and consequently the Office Action fails to establish a prima facie case of obviousness. Accordingly, for at least the reasons mentioned above, a reversal of the rejection of claim 5 is respectfully requested.

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* explain:

> [0150] ...The configuration diagram may also represent the system in a hierarchical manner, and the user may be able to "drill down" in the configuration diagram to view greater detail on various subsystems or devices.

> [0327]...The block diagram may have one or more nodes which represent sub-graphical programs (e.g., sub-VIs), and thus may be hierarchical.
>
> [0334] ...The user may also be able to select a group of nodes by
>
> drawing a "box" around the desired nodes.

Accordingly, for at least the reasons mentioned above, the rejection of this claim should be sustained.

6. Claim 6

Appellants argue:

> Claim 6, states, *inter alia.* yet no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "receiving from the user a specification of a hierarchy of the collection." Claim 1, from which claim 6 ultimately depends, requires the "collection" to comprise "a linked hierarchically organized plurality of HMI screen nodes".

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* taught "receiving from the user a specification of an HMI root screen node."

> "...For example, the user may use a pointing device (e.g., a mouse), and may possibly use a "wiring tool" icon on the display, to connect a first device icon to a second device icon. This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons...."
>
> ***
>
> This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons...

(para. [0017]).

As applied in the initial rejections, these disclosures, *inter alia,* clearly establish persuasive evidence of record that the applied portions of the relied-upon references teach, alone and in combination, the claimed limitation in question.

In specifically addressing the remaining arguments under this section, it is respectfully submitted that Appellants have not submitted evidence to support these attorney arguments. It is respectfully submitted that, without supporting evidence, these attorney arguments do little to rebut a prima facie case of obviousness.[6] Accordingly, for at least the reasons mentioned above, the rejection of this claim should be sustained.

7. Claim 7

Appellants argue:

> ...no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "automatically determining an arrangement of the collection."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.*: teach:

> ...The connections between device icons that are automatically displayed may be displayed with an appearance indicating the type of detected connection....,"

As applied in the initial rejections, these disclosures, *inter alia*, clearly establish persuasive evidence of record that the applied portions of the relied-upon references teach, alone and in combination, the claimed limitation in question.

8. Claim 8

Appellants argue:

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[6] *Id.*

> ... no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "receiving from the user a specification of a size the plurality of HMI screen nodes." No evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, anything regarding an HMI screen node as that phrase has been defined in the present application.

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, Leshem taught:

> ...This is a recursive step which is applied on a node-by-node basis in order to determine (i) the display size of each node...,"

(col. 13, lines 35-36). As applied in the initial rejections, these disclosures, *inter alia*, clearly establish persuasive evidence of record that the applied portions of the relied-upon references teach, alone and in combination, the claimed limitation in question.

9. Claim 9

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness. Claim 9 states, *inter alia*, yet no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "zooming a rendition of the plurality of HMI screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, Leshem teach zoom a rendition of the plurality of HMI screen node:

> ...To display the Pan Window 86, the user selects the "Pan Window" menu option from the VIEW menu while viewing a map. Within the Pan Window, the user is presented with a display of the entire map 30, with a dashed box 87 indicating the portion of the map that corresponds to the zoomed-in

> screen display. As the user navigates the site map (using the scrolling controls 40, 42 and/or other navigational controls), the dashed box automatically moves along the map to track the zoomed-in screen display...."

(col. 17, lines 29-46).

10. Claim 10

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness. Claim 10 states, *inter alia*, yet no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "panning a rendition of the plurality of HMI screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, Leshem taught panning a rendition of the plurality of HMI screen node:

> ...To display the Pan Window 86, the user selects the "Pan Window" menu option from the VIEW menu while viewing a map. Within the Pan Window, the user is presented with a display of the entire map 30, with a dashed box 87 indicating the portion of the map that corresponds to the zoomed-in screen display. As the user navigates the site map (using the scrolling controls 40, 42 and/or other navigational controls)...

11. Claim 11

Appellants argue:

> ... no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "collapsing a rendition of the plurality of HMI screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* et al. taught collapsing a

rendition of the plurality of HMI screen nodes ("...every individual tree is preferably collapsible...," para. [0410]).

12. Claim 12

Appellants argue:

> ... no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "expanding a rendition of the plurality of HMI screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* et al. teach "...expanded to show one or more device icons comprised in the configuration diagram....," (para. [0387]). This teaching clearly establishes persuasive evidence of record that one having ordinary skill in the art would have interpreted the limitations in question by the aforementioned disclosures.

13. Claim 13

Appellants argue:

> ...no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "rotating a rendition of the plurality of HMI screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* et al. teach "rotating a rendition of the plurality of HMI screen nodes" (see the rotate buttons on top toolbar towards the right hand side, Fig. 6, *Kodosky et al.*). This teaching clearly establishes persuasive evidence of record that one having ordinary skill in the art would have interpreted the limitations in question by the aforementioned disclosures.

14. Claim 14

Appellants argue:

> ...no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "rendering a portion of the plurality of screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* et al. teach "....a portion or all of a configuration diagram....," para. [0016])(emphasis added) of the plurality of HMI screen nodes ("...The configuration diagram may support various types of views, such as an entire system view, a subsystem view, a device view, a program view, etc. For example, the user can "drill down" in the configuration diagram to view a selected portion of the diagram, e.g., a selected subsystem of devices, a single device, the programs associated with a device, the data points associated with a device, the I/O channels associated with a device, etc....," para. [0015])(emphasis added). This teaching clearly establishes persuasive evidence of record that one having ordinary skill in the art would have interpreted the limitations in question by the aforementioned disclosures.

15. Claim 15

Appellants argue:

> ... no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "enabling the user to revise the collection." Claim 1, from which claim 15

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* et al. teach "...In step 208 the user may graphically configure program deployment and/or invocation using the

configuration diagram. The user may graphically configure program deployment and/or invocation by providing graphical user input to the configuration diagram to associate (e.g., drag and drop), icons with other icons, change connections between icons, etc....," (para. [0175]). This teaching clearly establishes persuasive evidence of record that one having ordinary skill in the art would have interpreted the limitations in question by the aforementioned disclosures.

16. Claim 16

Appellants argue:

> ... no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "enabling the user to revise at least one of the plurality of HMI screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* et al. teach that,"...The user may graphically configure ...," (para. [0175]). This teaching clearly establishes persuasive evidence of record that one having ordinary skill in the art would have interpreted the limitations in question by the aforementioned disclosures.

17. Claim 17.

Appellants argue:

> ...no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "receiving a user specification of an attribute of an HMI screen node."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* et al. teach that, "...The user can also draw links between program icons to configure an invocation relationship between the respective programs....," (para. [0316]). This teaching clearly establishes persuasive

evidence of record that one having ordinary skill in the art would have interpreted the limitations in question by the aforementioned disclosures.

18. Claim 18

> ...no evidence is of record that the applied portions of the relied-upon references teach alone or in combination, "receiving a user specification f an attribute of the specification."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* et al. teach that, "...For example, the displayed connections may have an appearance that varies according to one or more of color, size or shading to indicate the type of connection between the devices...," (para. [0010]). This teaching clearly establishes persuasive evidence of record that one having ordinary skill in the art would have interpreted the limitations in question by the aforementioned disclosures.

19. Claim 19

Appellants argue:

> ...no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "receiving from the user a specification of a link between two HMI screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* taught "receiving from the user a specification of an HMI root screen node."

> "...For example, the user may use a pointing device (e.g., a mouse), and may possibly use a "wiring tool" icon on the display, to connect a first device icon to a second device icon. This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....,"

> ***
>
> This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons...

(para. [0017]).

20. Claim 20

Appellants argue:

> ... no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "receiving from the user a specification of a link from a first HMI screen node to a second HMI screen node, the second HM] screen node non-familial to the first HMI screen node."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* taught "receiving from the user a specification of an HMI root screen node."

> "...For example, the user may use a pointing device (e.g., a mouse), and may possibly use a "wiring tool" icon on the display, to connect a first device icon to a second device icon. This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....,"
>
> ***
>
> This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons...

(para. [0017]).

21. Claim 21

Appellants argue:

> ....no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "rendering a link between two HMI screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* taught "receiving from the user a specification of an HMI root screen node."

> "...For example, the user may use a pointing device (e.g., a mouse), and may possibly use a "wiring tool" icon on the display, to connect a first device icon to a second device icon. This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....,"
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> ***
>
> This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons...

(para. [0017]).

22. Claim 22

Appellants argue:

> ...no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "rendering a link from a first HMI screen node to a second HMI screen node, the second HMI screen node non-familial to the first screen node."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* taught "receiving from the user a specification of an HMI root screen node."

> "...For example, the user may use a pointing device (e.g., a mouse), and may possibly use a "wiring tool" icon on the display, to connect a first device icon to a second device icon. This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....,"
>
> ***

> This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons...

(para. [0017]).

23. Claim 23

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered atone or in combination, establishes a prima facie case of obviousness. Since claim 23 ultimately depends from claim 1, the reasons for reversing the rejection of claim 1 apply to claim 23.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

24. Claim 24

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

25. Claim 25

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness. Since claim 25

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

26. Claim 26

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

27. Claim 27

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered atone or in combination, establishes prima-facie case of biomes.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

28. Claim 28

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima-facie ease of obviousness.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

29. Claim 29

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

30. Claim 30

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

31. Claim 31

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

32. Claim 32

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

33. Claim 33

Appellants argue:

> ... no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, in view of the explicit definition of the present application for the phrase "HMI screen node", "via the HMI screen navigation editor, enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* explain:

> [0008] In one embodiment, the user may create or assemble a configuration diagram on a computer system (e.g., the "main" computer system) representing a system, e.g., a distributed system. The configuration diagram may include device icons that represent devices in the system. The device icons preferably have an appearance which corresponds to the device they represent. This allows the viewer to easily view and consider what devices are present in the system.

(Emphasis added).Even more specifically, the language, "The device icons preferably have an appearance which corresponds to the device they represent...," without more, clearly establishes persuasive evidence of record that one having ordinary skill in the art would have interpreted "device Icons" to teach an "HMI screen node", which the present application defines as a miniaturized visual representation of a visual display of a human

machine interlace, used for monitoring, programming, and/or controlling automation machines and/or processes, renderable via a monitor.

34. Claim 34

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

35. Claim 35

Appellants argue:

> ...no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, "receiving from the user, a user-drawn relationship indication line between two of the plurality of HMI screen nodes."

The Examiner respectfully disagrees. The Examiner has clearly pointed to the specific disclosure relied upon. More specifically, *Kodosky et al.* taught "...The configuration diagram may include connections ("connection icons") such as lines, that are displayed between the various device icons to show the interrelationship or coupling between the respective devices....," (para. [0204]). As applied in the initial rejections, these disclosures, inter alia, clearly establish persuasive evidence of record that the applied portions of the relied-upon references teach, alone and in combination, the claimed limitation in question.

36. Claim 36

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie ease of obviousness.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

37. Claim 37

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

38. Claim 38

Appellants argue:

> None of the applied portions of the references relied upon in the Of-rice Action, whether considered alone or in combination, establishes a prima facie case of obviousness. Since claim 38

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

39. Claim 39

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie ease of obviousness. Since claim 39

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

40. Claim 40

Appellants argue:

> ... no evidence is of record that the applied portions of the relied-upon references teach, alone or in combination, in view of the explicit definition of the present application for the phrase "HMI screen node", "rendering a collection comprising a linked hierarchically organized plurality of HMI screen nodes to a user, said collection created via a provided HMI screen navigation editor."

The Examiner respectfully disagrees. *Kodosky et al.* clearly teach rendering the collection to the user (e.g., *Kodosky et al.*'s figures 20A and 24A above). For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

41. Claim 41

Appellants argue:

> None of the applied portions of the references relied upon in the Office Action, whether considered alone or in combination, establishes a prima facie case of obviousness.

The Examiner respectfully disagrees. For the reasons already made of record, as applied in the initial rejections, the examiner submits there is persuasive evidence of record that the applied references teach, alone and in combination, the limitations of this claim.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the Examiner in the Related Appeals and Interferences section of this Examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

This examiner's answer contains a new ground of rejection set forth in section **(9)** above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

(1) **Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent

applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

Respectfully submitted,

/Samir Termanini/
Examiner, Art Unit 2179

Conferees:

/Ba Huynh/
Primary Examiner, Art Unit 2179

/Weilun Lo/
Supervisory Patent Examiner, Art Unit 2179

A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:

/Wendy Garber/

Director, Technology Center 2100